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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/873,195

06/05/2001

Ward S. Foster

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06/29/2006

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

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EXAMINER

DINH, MINH

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/873,195	FOSTER ET AL.	
	Examiner	Art Unit	
	Minh Dinh	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. This action is in response to the RCE/amendment filed 10/27/2005. Claims 1, 10, 17 and 21 have been amended.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 17 and 21 have been considered but are not persuasive. Applicant's amendments have necessitated a new search and new grounds of rejection.
3. Applicant's arguments with respect to claim 1 have been fully considered but they are not persuasive. Applicant argues that Bacon's workflow management system applies to operators, which are people, as opposed to computers (page 11, 1st full paragraph). First, Bacon is relied upon for the teaching of **sharing a single copy of the job ticket** which "JDF Specification" lacks. In addition, Bacon discloses a workflow management system that applies to "actors" including both participants, which are people, and agents, which are software run by a processor (col. 1, lines 30-42; col. 4, lines 55-62).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7-9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over "JDF Specification Draft Spiral 4.0" in view of Bacon et al (6,697,784).

Regarding claims 1, 10 and 23, "JDF Specification" discloses an apparatus comprising: a work flow controller coupled to a communications network wherein the work flow controller is capable of defining a work flow corresponding to a print job request, and capable of defining the job ticket related to the print job request, and wherein the work flow comprises one or more branches (Sections 2.1.2.3 Agents, 2.1.2.4 Controllers, p. 29; fig. 2.1, p. 30; Sections 2.2 JDF Workflow, 2.2.1 Job Structure, p. 31-33); and a job ticket service that is capable of storing the job ticket, generating a stored location of the job ticket , which meets the limitation of a job ticket reference, and providing the job ticket reference to a processor, wherein the job ticket comprises a framework specifying the one or more branches, and wherein the job ticket service locks a branch when the branch is accessed by

a processor (table 3.9, p. 49; Sections 4.2.1 Determining Executable Nodes, p. 84; 4.4 Spawning and Merging, p. 92; 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96; Section 2.4 Role of Messaging in JDF; Section 5.6.2.8 SubmitQueueEntry, p. 157).

"JDF Specification" does not teach sharing of the job ticket, but instead provides multiple devices each with a copy of the job ticket to permit parallel processing. Bacon discloses sharing of one instance of a process definition, which meets the limitation of a job ticket, in a workflow management system (col. 4, lines 27-43; col. 6, lines 8-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the "JDF Specification" apparatus to share a single copy of the job ticket, as taught by Bacon. The motivation for doing so would have been to reduce processing load, to serve more workflows concurrently and to reduce storage requirement. Accordingly, the multiple devices use the job ticket reference to access the job ticket concurrently.

Regarding claims 2, 11 and 13, "JDF Specification" further discloses a lock flag, wherein the lock flag is set to lock the branch (Section 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96; table 3.9, p. 49).

Regarding claim 3, "JDF Specification" further discloses that the lock flag locks the branch to prevent branch modification, and wherein a second

processor may access the locked branch in a read-only mode (Section 4.4.2

Case 2: Spawning and Merging with resource copying, p. 95-96).

Regarding claim 7, "JDF Specification" further discloses a job store storing content corresponding to the branch, wherein the processor accesses the content when the branch is unlocked (Section 4.1 Creation and Modification, p. 79).

Regarding claim 8, "JDF Specification" further discloses a lock flag providing the lock status for the branch (Section 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96; table 3.9, p. 49).

Regarding claim 9, "JDF Specification" further discloses a data table listing branches of the workflow and wherein when the processor accesses a branch, the job ticket service marks the data table to indicate the branch is unavailable for modification (table 4.1, p. 86).

Regarding claim 12, "JDF Specification" further discloses a data table listing branches of the workflow and wherein when the processor accesses a branch, the job ticket service marks the data table to indicate the branch is unavailable for modification (table 4.1, p. 86).

6. Claims 4-5 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over "JDF Specification" in view of Bacon as applied to claims 1 and 10, and further in view of Silberschatz et al ("Operating System

Concepts"). "JDF Specification" does not disclose the use of an access key and that the key is encrypted. Silberschatz discloses the use of an access key (Sections 6.7, p. 197; 13.4.4 A Lock-Key Mechanism, p. 445). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus disclosed in the "JDF Specification" reference to use an access key, as taught by Silberschatz. The motivation for doing so would have been that the access key could be passed freely from domain to domain (Section 13.4.5 Comparison, p. 445). Silberschatz also discloses that sensitive information is encrypted when transmitted over the network (Section 14.6 Encryption, p. 471). Since the access key is sensitive information and transmitted across domains, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined apparatus disclosed by "JDF Specification" reference and Bacon to encrypt the access key, as taught by Silberschatz. The motivation for doing so would have been to protect information transmitted over unreliable link.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over "JDF Specification" in view of Bacon as applied to claim 1 above, and further in view of McNally et al (6,823,513). "JDF Specification" does not disclose that the processor that accesses the branch is authorized to access the

branch, and wherein such authorization is stored with the job ticket.

McNally discloses a workflow distribution process that grants authorization to an entity so that the entity is authorized to access a branch, and wherein such authorization is stored with the job ticket (col. 5, lines 43-61; col. 6, lines 27-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus disclosed in the "JDF Specification" such that the processor must be authorized to access the branch and that such authorization is stored with the job ticket, as taught by McNally. The motivation for doing so would have been to minimize the risk of loss of resources that are proprietary to the provider of the resource (col. 2, lines 54-61).

8. Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over "JDF Specification" in view of Bacon and Barkley (6,088,679).

Regarding claims 17 and 21, "JDF Specification" discloses a method comprising: defining one or more tasks to complete a job ticket, wherein the job ticket relates to a print job and comprises a node-tree having a plurality of branches, and wherein each branch of the plurality of branches includes one or more defined tasks (Sections 2.1.2.3 Agents, 2.1.2.4 Controllers, p. 29; fig. 2.1, p. 30; Sections 2.2 JDF Workflow, 2.2.1 Job Structure, p. 31-

33); receiving a request from a device to access one or more of the plurality of branches, each said request comprising a location where the job ticket is stored, the location meets the limitation of a job ticket reference; retrieving the stored job ticket using the job ticket reference provided by the device; determining if another device is currently accessing one or more of the plurality of branches (Sections 4.2.3 Device / Controller Selection, p. 85); for branches not being accessed, copying information from the branches to the device; and locking the branch access (Sections 4.4 Spawning and Merging, p. 92; 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96).

"JDF Specification" does not teach sharing of the job ticket, but instead provides multiple devices each with a copy of the job ticket to permit parallel processing. Bacon discloses sharing of one instance of a process definition, which meets the limitation of a job ticket, in a workflow management system (col. 4, lines 27-43; col. 6, lines 8-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the "JDF Specification" apparatus to share a single copy of the job ticket, as taught by Bacon. The motivation for doing so would have been to reduce processing load, to serve more workflows concurrently and to reduce storage requirement. Accordingly, the multiple devices use the job ticket reference to access the job ticket concurrently.

"JDF Specification" does not disclose implementing authorization for access control in the workflow processing system. Barkley discloses implementing authorization for access control in a workflow processing system (col. 2, lines 9-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the method disclosed in the "JDF Specification" to implement authorization for access control, as taught by Barkley. Access control is an integral part in the enactment of a workflow.

Regarding claims 18 and 22, "JDF Specification" further discloses unlocking the branch; and copying the modified branch information to the job ticket (Section 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96).

Regarding claim 19, "JDF Specification" further discloses that locking the branch comprising setting a lock flag at the branch (Section 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96).

Regarding claim 20, "JDF Specification" further discloses that locking the branch prevents branch information modification and allows read-only access to the locked branch. (Section 4.4.2 Case 2: Spawning and Merging with resource copying, p. 95-96).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,078,982 to Du et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dinh whose telephone number is 571-272-3802. The examiner can normally be reached on Mon-Fri: 10:00am-6:30pm.

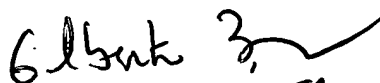
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD

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6/23/06


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